

SPECIAL REPORT

Cargo Plane over RSF Territory & Continued Civilian Displacement from El-Fasher

12 June 2024

Yale SCHOOL OF PUBLIC HEALTH
Humanitarian Research Lab

© 2024 Humanitarian Research Lab at Yale School of Public Health. Imagery © 2024 Maxar, USG-Plus, © 2024 Planet Labs.

Maps utilize the United Nations Office for the Coordination of Humanitarian Affairs (UN OCHA) Field Information Services Section subnational administrative boundary data. Data sources: Esri, HERE, LSIB, UN OCHA, GADM.org, Esri data, © OpenStreetMap contributors, HERE, Garmin, Foursquare, METI/NASA, USGS

This report was independently produced by the Yale School of Public Health's Humanitarian Research Lab with the support of the Avaaz Foundation. Learn more at <https://medicine.yale.edu/lab/khoshnood/> and <https://avaaz.org>.

The Faculty Director of the Humanitarian Research Lab (HRL) at the Yale School of Public Health is Dr. Kaveh Khoshnood. The analysis and production of this report was overseen by HRL Executive Director Nathaniel Raymond and Caitlin Howarth. Analysis and report production was conducted by the Humanitarian Research Lab's Conflict Analytics team.

Citation | Caitlin N. Howarth, Kaveh Khoshnood, Nathaniel A. Raymond et al. "Special Report: Cargo Plane over RSF Territory & Continued Civilian Displacement from El-Fasher" 12 June 2024. Humanitarian Research Lab at Yale School of Public Health: New Haven.

I. Executive Summary

Yale HRL has identified an Ilyushin (IL-76) flying within approximately 1.7 kilometers of El-Fasher over Rapid Support Forces' (RSF) territory in satellite imagery on the morning of 11 June 2024. The same model of aircraft (IL-76) is reported to be used for lethal aid transfers by the United Arab Emirates (UAE) to the RSF for flights to locations in Chad.

Meanwhile, civilians are fleeing El-Fasher and being allegedly killed while the Rapid Support Forces (RSF) appear to advance through El-Fasher from east to west. Civilians are no longer able to safely remain in El-Fasher: RSF is reportedly attacking critical infrastructure and there are no more hospitals in El-Fasher that are fully functional or equipped to provide medical care for mass casualty events.

Yale HRL documents significant displacement throughout El-Fasher and towards Zamzam IDP Camp starting on 6 June 2024. New IDP encampments are visible in and outside El-Fasher. Movement of IDPs toward Zamzam Internally Displaced Persons (IDP) camp have been observed. IDP encampments within the city are expanding.

Yale HRL assesses looting at the South Hospital on 11 and 12 June after RSF allegedly attacked the hospital. Yale HRL corroborates reports that a community kitchen was destroyed in satellite imagery.

Since 3 June approximately 278.93 football pitches of damage has occurred in El-Fasher, bringing the total area of damaged area in the city since 21 March to 2.088 square kilometers.

Eight communities west of El-Fasher have been razed by arson as evidenced by thermal scarring between 3 June – 12 June. Yale HRL has identified a total of 43 communities near El-Fasher have been attacked by RSF since 31 March 2024.

II. Key Findings

Ilyushin (IL-76) Flying over RSF-Controlled Areas Southeast and East of El-Fasher

Yale HRL identified an aircraft in the air assessed to be an Ilyushin (IL-76) flying east over RSF territory approximately 1.7 km southeast and then approximately 7.5 km east of El-Fasher on the morning of 11 June 2024 (local time). The aircraft was visible in sequential satellite imagery taken within approximately one minute of each other on 11 June. The IL-76, captured in satellite imagery, is assessed to have flown approximately 12 kilometers to the northeast of its location in the previous image taken approximately one minute before. Yale HRL has not yet identified the flight number but is continuing to investigate this aircraft.

The origin and registration number of this IL-76 are unknown at this time. The Ilyushin (IL-76) (Candid) is a versatile cargo plane used for multipurpose delivery that can include resupply of heavy munitions, artillery, light-armored vehicles, and refueling to remote areas in air drops.¹ Many militaries use the IL-76 as a tactical airlifter for materiel, vehicles, and personnel to support active combat operations.

The United Nations' January 2024 Panel of Experts report provides credible information that “several times per week, weapons and ammunition shipments were unloaded from cargo planes arriving at Amdjarass airport, then loaded on trucks” as part of the alleged resupply from the UAE to the RSF.² The Panel of Experts reports that “various flight-tracking experts have observed a heavy rotation of cargo planes coming from Abu Dhabi International Airport to Amdjarass airport in eastern Chad, with stops in regional countries such as Kenya, Rwanda and Uganda” and media reports claimed that “the aircraft were transporting weapons, ammunition, and medical equipment for RSF.”³ The Panel of Experts report does not provide specific identification of the specific cargo aircraft used for these transports.

Open source analysts have identified multiple IL-76 flights by airlines known to be used by the UAE and with an origin points in the UAE, midpoint stops in Nairobi, Ethiopia, or Entebbe, Uganda, and final destinations in N'Djamena or Amdjarass in Chad. Since the United Nations' Panel of Experts report, there is considerable open source reporting including ground photos of IL-76 aircraft present at the Amdjarass airport in Chad.⁴ These flights have occurred on multiple occasions throughout May and June 2024.

Recent flights that corroborate the use of IL-76's include: Skyline Airlines 6 June 2024 (SLF4942)'s daily trip between Mombassa and an unknown location, potentially the Central African Republic or Chad; a New Way Cargo Airlines IL-76 flight with the most recent activity heading from Saudi Arabia to the UAE on 12 June 2024, and a MAK KG Airlines IL-76 flight operated as a UN Humanitarian Air Service tracked toward Entebbe.⁵ Some of these flights are known to turn off signal receivers.⁶ Yale HRL does not have information on the signal receivers turned off for this flight over El-Fasher.

While SAF has used IL-76's in the past there is no indication that SAF is currently using these planes for resupply to El-Fasher. Images and videos of past SAF air resupply are using aircraft that are not consistent with an IL-76. SAF has not been seen using IL-76 in recent months and there is no indication of SAF re-supply by air on 11 June 2024.

Members of the UN Security Council must request further information from the UAE about whether they are re-supplying RSF in the El-Fasher theater of operations.

Displacement

Civilians appear to be fleeing from RSF and damage within El-Fasher from El-Fasher city itself. Yale HRL corroborates significant displacement within and outside El-Fasher, North Darfur. Yale HRL has assessed a sudden increase of likely IDP encampments in the southwestern areas of El-Fasher through satellite imagery analysis. These new and newly expanded informal IDP settlements are in the southwest El-Fasher neighborhoods by 6 June 2024. Some of these images have been withheld for the human security of these populations. Simultaneously, likely civilian traffic consistent with displacement toward Zamzam IDP camp, approximately 12 km southwest of El-Fasher, has significantly increased. Yale HRL imagery analysts assessed approximately 70 vehicles present on the road to Zamzam on 6 June, which increased to approximately 100 vehicles on 11 June and doubled to approximately 200 vehicles on 12 June 2024.

Simultaneously, civilians are likely being displaced from IDP camps set up in schools and other community shelters across the southern and southeastern neighborhoods of El-Fasher. It is not clear when these IDP camps were set up. Yale HRL has documented a significant visible decrease of tents in these facilities during the same time period (31 May – 6 June). Buildings near these IDP camps have damaged due to conflict in recent days.

These findings are consistent with widespread open source reports that civilians are fleeing the escalating conflict in El-Fasher. Many of those able to escape El-Fasher are reportedly heading to Tawilah and Jebel Marra. These locations are some of the only localities in Darfur not under RSF control at present. However, according to “a number of local community leaders,” Tawilah and Jebel Marra are reportedly also facing “extremely complex humanitarian conditions” such as “shortages of food, medicine, and shelter tents.”⁷ Some civilians unable to escape El-Fasher are reportedly moving to the northern areas of the city, towards Abu Shouk IDP camp.⁸

Humanitarian + Healthcare Facilities Looted and Damaged

Yale HRL finds indicators consistent with looting outside the South Hospital on the 11 and 12 June after MSF reported that RSF attacked the hospital. Following RSF’s attack on South Hospital, no major hospitals in El-Fasher are reported to be fully operational. There is no other facility in El-Fasher capable of providing a similar standard of care, especially for mass casualty events.⁹ MSF reported that RSF shelling and gun fire within the hospital killed several people in the hospital and injured others.¹⁰

Open sources have also reported damage to the Sayyid Al-Shuhadaa Health Center in Al-Thawra neighborhood in southern El-Fasher due to RSF bombardment.¹¹ Yale HRL cannot visually confirm the damage at this time.

Additionally, Yale HRL visually confirms damage to a community kitchen in Timbasi neighborhood. Damage to the kitchen is visible in satellite imagery analyzed by Yale HRL. Though the kitchen was reportedly closed due to shelling in the area, reported RSF munitions resulted in the deaths of eight people, including youth volunteers, along with injuries to several others.¹² These community kitchens became operational around May 2023.

Abu Shouk’s Emergency Room reported on 12 June that a field survey identified cases of acute malnutrition in Abu Shouk camp, as well as inadequate access to water, food, shelter, and medications.¹³

Damage

Yale HRL has identified 0.169 square kilometers, the equivalent of 13.52 football pitches, of conflict-related damage to El-Fasher between 3 - 12 June 2024.¹⁴ Since 21 May, Yale HRL has identified 2.088 square kilometers, 278.93 football pitches, of conflict-related damage in El-Fasher.

RSF has continued to systematically target the southern and northeastern neighborhoods of El-Fasher, including locations just south of Abu Shouk IDP camp. This damage is primarily to civilian dwellings.

Of the total conflict-related damage in El-Fasher since 21 March, 0.105 square kilometers occurred between 3 – 6 June 2024 and 0.064 square kilometers of damage occurred between 6 – 12 June 2024. The damage progression is increasingly moving inward (west) from the outer (east) edges of the city and is starting to progress northwest as well toward the Al-Salaam IDP camp.

Razing of Communities West of El-Fasher

Yale HRL has identified that eight communities razed by arson as evidenced by thermal scarring between 3– 12 June 2024. Three of these communities, Community 29, 30 and 31, are razed for the first time and six of the communities, Tikailat, Jughmar, Ammar Jadid, Jaranga, Shalakhna, and Community 31 have been attacked more than once. The communities which have been razed for the first time are located along the road northwest of El-Fasher. To date, Yale HRL has identified 43 communities north, northwest, west, and southwest of El-Fasher since 3 June which have been razed by arson as evidenced by thermal scarring. A significant number of the 43 total razed communities have been razed multiple times. These communities are reported to be essential to the agricultural production in the region.

Thermal scarring is a visual phenomenon that results from fire events, which is visible in multiple forms of remote sensing data. The thermal scarring patterns present in the affected communities in this report are consistent with those resulting from an intentional arson attack, in which individual structures were selected for burning.¹⁵

III. Human Security Analysis

The U.S. Special Envoy for Sudan stated that El-Fasher could fall to RSF imminently.¹⁶ At present, Yale HRL is not prepared to assess a timeframe for El-Fasher’s potential fall to RSF forces. However, the humanitarian and human security impact of the conflict in recent days has continued to escalate to crisis levels. Civilians are fleeing their homes *en masse* to multiple locations, placing them in even greater risk. Humanitarian and healthcare facilities are being attacked and destroyed. Civilian homes inside the city are being burnt to the ground, including along ethnic lines.

The information presented in this report, indicating some form of military-grade cargo transport over RSF areas raises significant concerns about reported ongoing outside intervention in support of RSF on their assault of El-Fasher. While Yale HRL is not presently identified what entity was operating that aircraft, it is incumbent upon the member states of the United Nations Security Council to urgently investigate the provenance, intent, and operations of that specific aircraft and other similar sorties. The government of the United Arab Emirates must publicly address the issues raised by this report and other accounts of cargo flights occurring with similar air assets and operational patterns.

Methodology

Yale HRL utilizes data fusion methodologies of open source and public and commercially available remote sensing data. Yale HRL produced this report through

the cross-corroboration of open source and remote sensing data, including satellite imagery and thermal sensor data.

Place names were identified using UN P-codes obtained via the United Nations Humanitarian Data Exchange (HDX) and International Organization for Migration (IOM)'s Displacement Tracking Matrix (DTM) Sudan. This baseline source of information was then verified and informed through open source analysis by Yale HRL's analysts with relevant cultural and linguistic skills. In some cases, communities may have names similar to other communities or may be known by multiple names.

Specific coordinates have been provided to support the further identification and disambiguation of specific place names and community locations. Human security concerns were accounted for as part of the decision to release specific coordinates; potential civilian risk was rated minimal because these communities have already been visibly attacked, and in the case of combat activity and coordinates are released, it is assessed that the combatants are aware of this situation.

Limitations

There are significant limitations to the data fusion methodology. The information environment in Sudan does not have the breadth of data available in other locations, and there is likely a significant reporting bias for those who provide open source reporting.

Furthermore, the tools and techniques face significant challenges to assess activities such as extrajudicial detention, conflict-related sexual violence (CRSV), and assess conflict-related casualties, particularly in data environments with low data.

Additionally, satellite imagery analysis is limited by available imagery over time and space. Limited available nadir angles of satellite imagery can produce challenges to assess structural damage, until multiple angles and ground-level photographic and video materials emerge to help inform the analysis.

¹ Wikipedia, "Ilyushin Il-76", June 10 2024, https://en.wikipedia.org/wiki/Ilyushin_Il-76, archived at <https://archive.ph/KkZZD>

² United Nations Security Council, "Final report of the Panel of Experts on the Sudan," S/2024/65, January 15, 2024, <https://documents.un.org/doc/undoc/gen/n24/005/64/pdf/n2400564.pdf?token=IWiEhn6iSOkIMXiupl&fe=true>.

³ United Nations Security Council, "Final report of the Panel of Experts on the Sudan," S/2024/65, January 15, 2024, <https://documents.un.org/doc/undoc/gen/n24/005/64/pdf/n2400564.pdf?token=IWiEhn6iSOkIMXiupl&fe=true>.

⁴ Geron, "The UAE airlift to Amdjarass, Chad", July 03, 2023, <https://gerjon.substack.com/p/the-uae-airlift-to-amdjarass-chad>, archived at <https://archive.ph/C1QB1>; FlySkyUA Official (on X formerly known as twitter) @flyskyua, "#FlySkyUkraine, #UAETOestablishfieldhospital", July 8, 2023, <https://x.com/flyskyua/status/1677703679296585729>, archived at <https://perma.cc/7JUL-PM3A>

⁵ @MenchOSINT (X formerly known as Twitter), "Dodgy UAE-chartered Cargos in Africa", 14 May 2024,

"<https://x.com/MenchOsint/status/1790414707456721310>" <https://x.com/MenchOsint/status/1790414707456721310>, archived at <https://perma.cc/3UM3-D5BS>; HRL MMC_0022

⁶ Geron, "The UAE airlift to Amdjarass, Chad", July 03, 2023, <https://gerjon.substack.com/p/the-uae-airlift-to-amdjarass-chad>, archived at <https://archive.ph/C1QB1>

⁷ Darfur24, "فارون من الفاشر يواجهون الموت في طويلة", June 11, 2024, <https://www.darfur24.com/2024/06/11/%d9%81%d8%a7%d8%b1%d9%88%d9%86-%d9%85%d9%86-%d8%a7%d9%84%d9%81%d8%a7%d8%b4%d8%b1-%d9%8a%d9%88%d8%a7%d8%ac%d9%87%d9%88%d9%86-%d8%a7%d9%84%d9%85%d9%88%d8%aa-%d9%81%d9%8a-%d8%b7%d9%88%d9%8a%d9%84%d8%a9/>, <https://perma.cc/86BY-GJDW>

⁸ Darfur24, "تجدد المعارك بـ"الفاشر" مع اقتراب "الدعم السريع" من مناطق سيطرة الجيش والحركات", June 11, 2024, <https://www.darfur24.com/2024/06/11/%D8%AA%D8%AC%D8%AF%D8%AF-%D8%A7%D9%84%D9%85%D8%B9%D8%A7%D8%B1%D9%83-%D8%A8%D9%80%D8%A7%D9%84%D9%81%D8%A7%D8%B4%D8%B1-%D9%85%D8%B9-%D8%A7%D9%82%D8%AA%D8%B1%D8%A7%D8%A8-%D8%A7%D9%84%D8%AF%D8%B9/>, archived at <https://perma.cc/39XW-8TK2>

⁹ @MSF_Sudan (on X formerly known as Twitter), "South Hospital was one of only two with surgical capacity" June 9, 2024, https://x.com/MSF_Sudan/status/1799903823743381803, archived at <https://perma.cc/K6BM-ZWR6>

¹⁰ MSF Sudan (@MSF_Sudan), "Today, in El Fasher, nowhere is safe due to the shellings, including the hospitals", X (formerly known as Twitter), June 7, 2024, https://x.com/MSF_Sudan/status/1799046270969082092, archived at <https://perma.cc/25AA-BKQU>.

¹¹ Darfur24, "تجدد المعارك بـ"الفاشر" مع اقتراب "الدعم السريع" من مناطق سيطرة الجيش والحركات", June 11, 2024, <https://www.darfur24.com/2024/06/11/%D8%AA%D8%AC%D8%AF%D8%AF-%D8%A7%D9%84%D9%85%D8%B9%D8%A7%D8%B1%D9%83-%D8%A8%D9%80%D8%A7%D9%84%D9%81%D8%A7%D8%B4%D8%B1-%D9%85%D8%B9-%D8%A7%D9%82%D8%AA%D8%B1%D8%A7%D8%A8-%D8%A7%D9%84%D8%AF%D8%B9/>, archived at <https://perma.cc/39XW-8TK2>.

¹² Radio Dabanga, "8 مقتل من المتطوعين بالفاشر إثر سقوط قذيفة أطلقتها قوات الدعم السريع", June 12, 2024, <https://www.dabangasudan.org/ar/all-news/article/%D9%85%D9%82%D8%AA%D9%84-8-%D9%85%D9%86-%D8%A7%D9%84%D9%85%D8%AA%D8%B7%D9%88%D8%B9%D9%8A%D9%86-%D8%A8%D8%A7%D9%84%D9%81%D8%A7%D8%B4%D8%B1-%D8%A5%D8%AB%D8%B1-%D8%B3%D9%82%D9%88%D8%B7-%D9%82%D8%B0%D9%8A>, archived at <https://perma.cc/4VBN-6ZUQ>; Darfur Victims Support @dvs2030 (on X formerly known as Twitter), June 11, 2024, <https://x.com/dvs2030/status/1800596982698029232>, <https://perma.cc/GK5Y-C4YG>

¹³ Facebook, "خلال المسح الميداني من غرفة طوارئ معسكر ابوشوك", (Abu Shouk Emergency Room) غرفة طوارئ معسكر ابوشوك, <https://www.facebook.com/watch/?v=3773296906236565&rdid=ZycOaKbDZEN5AtxH>, <https://perma.cc/5G5B-WYCX>.

¹⁴ The definition of football pitches aligns with the FIFA standard football pitches.

¹⁵ Brittany Card, Ziad Al Achkar, Isaac L. Baker, and Nathaniel A. Raymond. 9/2015. Satellite Imagery Interpretation Guide: Intentional Burning of Tukul.

<https://hhi.harvard.edu/publications/satellite-imagery-interpretation-guide-intentional-burning>

¹⁶ Anne Soy, "Key Sudanese city could fall to rebels imminently - US," BBC News, June 11, 2024, <https://www.bbc.com/news/articles/cevz25n292o>, archived at <https://perma.cc/7AWH-QF6D>.

Ilyushin Il-76 observed in flight over RSF territory east of El-Fasher

According to analysis of satellite imagery, on 11 June 2024, an Ilyushin Il-76 cargo plane was observed flying over RSF territory at approximately 11:08 UTC+2. Imagery collected approximately one minute later at 11:09 UTC+2 shows the Il-76 in flight approximately 12 km northeast of the previously observed location.



DOI: 11 June 2024 | 11:08 UTC+2



DOI: 11 June 2024 | 11:09 UTC+2



Ilyushin Il-76TD cargo plane

AMDJARASS AIRPORT, CHAD

On 3 July 2023, open sources reported that UAE supported Ilyushin Il-76TD cargo plane at the Amdjarass Airport in Chad. @Gerjon_ on Twitter, known now as X, geolocates this Il-76 TD cargo plane (UR-FSA) at the Amdjarass Airport on 3 July 2023.



Date: 03 July 2023

Citation: Geron, "The UAE airlift to Amdjarass, Chad", July 03, 2023, <https://gerjon.substack.com/p/the-uae-airlift-to-amdjarass-chad>, archived at <https://archive.ph/C1QB1> ; FlySkyUA Official (on X formerly known as twitter) @flyskyua, "#FlySkyUkraine, #UAETOestablishfieldhospital", July 8, 2023, <https://x.com/flyskyua/status/1677703679296585729>, archived at <https://perma.cc/7JUL-PM3A>

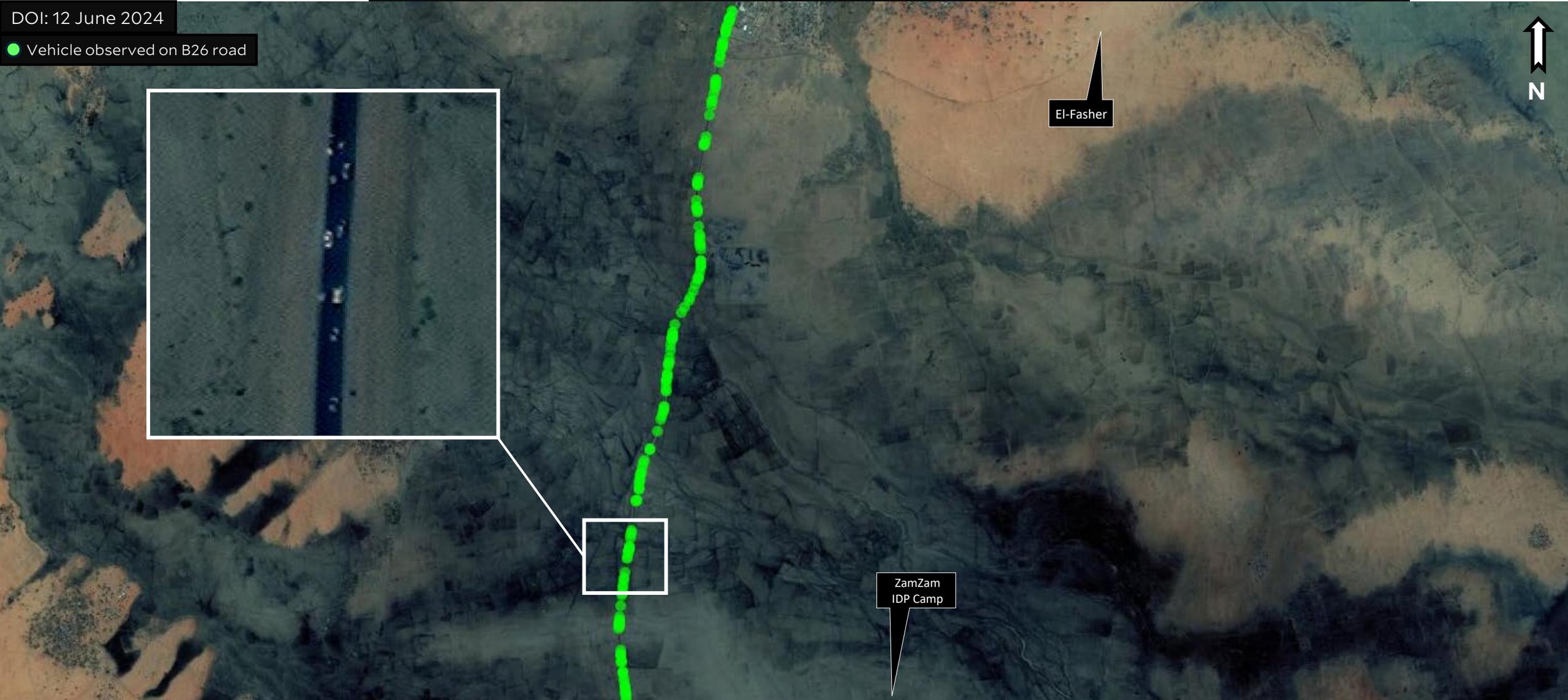
Increase in civilian traffic on B26 Road south from El-Fasher to ZamZam

According to analysis of satellite imagery, on 12 June 2024, approximately 201 vehicles were identified on the B26 road leading from El-Fasher to ZamZam IDP camp. Previous imagery collected on 11 June shows approximately 103 vehicles on the road, and 06 June imagery shows 73 vehicles on the road, showing an increasing presence of traffic coinciding with displacement due to ongoing violence in El-Fasher.



DOI: 12 June 2024

● Vehicle observed on B26 road



IDP Camp, South El-Fasher

DECREASE IN TEMPORARY STRUCTURES BETWEEN 9-16 MAY AND 16 MAY-6 JUNE 2024

Analysis of satellite image shows a significant decrease in informal temporary structures at IDP compound at south El-Fasher, observed between 9-16 May and 16 May-6 June 2024. Structures are likely consistent with IDP shelters. Change in the number of structures coincides with time of damage in the area. Likely, indicative of the relocation of IDP to another area or outside of El-Fasher.



9 May 2024 © 2024 Maxar, USG-Plus



16 May 2024 © 2024 Maxar, USG-Plus



06 June 2024 © 2024 Maxar, USG-Plus

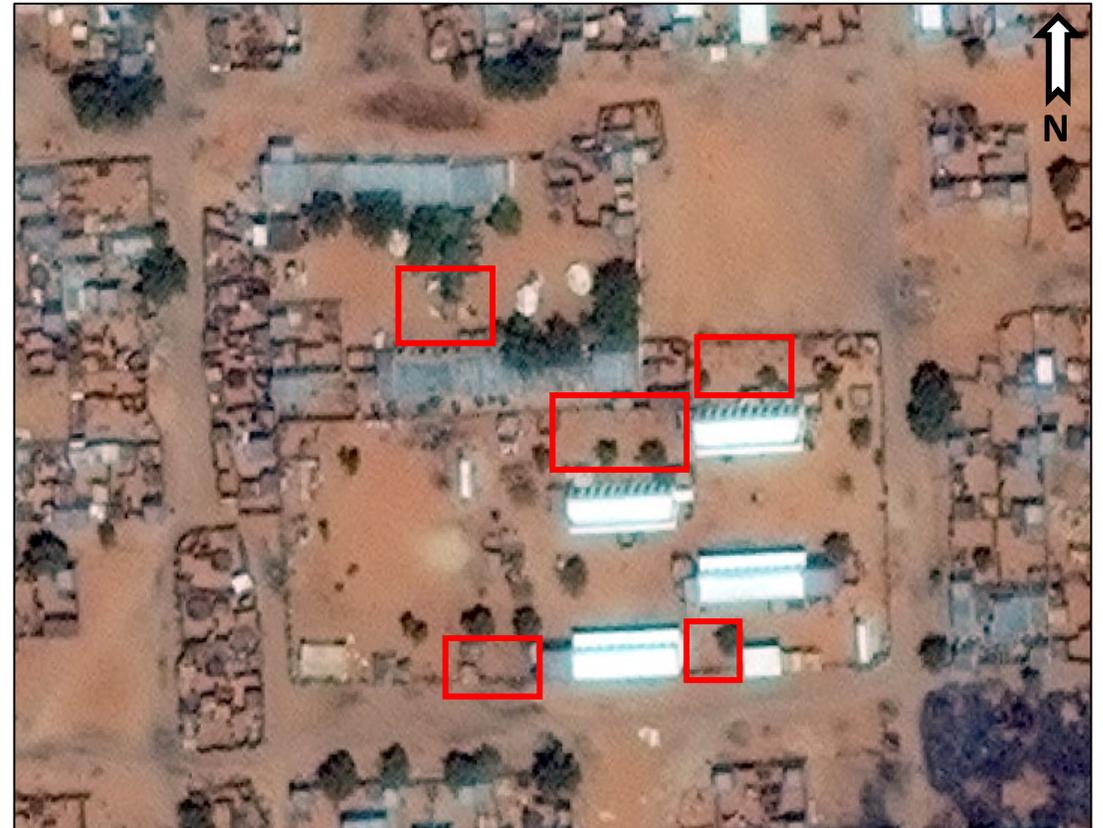
Al-Qemma Primary School for Girls, El-Fasher

DECREASE IN TEMPORARY STRUCTURES BETWEEN 31 MAY AND 6 JUNE 2024

Significant decrease in temporary structures, footprint consistent with UNHCR tents, at kindergarten and school compound at south El-Fasher, observed between 31 May and 6 June 2024. Structures are likely consistent with IDP shelter. Change in the number of structures coincides with time of damage in the area. Likely, indicative of the relocation of IDP to another area or outside of El-Fasher.



31 May 2024 © 2024 Maxar, USG Plus



06 June 2024 © 2024 Maxar, USG Plus

South Hospital, El-Fasher

POSSIBLE LOOTING AT SOUTH HOSPITAL BETWEEN 06-12 JUNE 2024

Analysis of satellite image shows a significant absence of vehicles at the Southern Hospital in El-Fasher between 06-11 June 2024. Additionally, white objects consistent with material and supplies are seen in this location on the same date. Imagery collected on 12 June shows the presence of a white cargo truck and the absence of a majority of the white objects. This analysis corroborates reports of the attack on the South Hospital on 8 June 2024.



06 June 2024 © 2024 Maxar, USG Plus



11 June 2024 © 2024 Maxar, USG Plus



12 June 2024 © 2024 Maxar, USG Plus

Community Kitchen, El-Fasher

NEW MUNITIONS IMPACT OBSERVED AT COMMUNITY KITCHEN IN EL-FASHER, 06-11 JUNE 2024

Analysis of satellite image shows new munitions impact on former sports fields now used as a community kitchen in south El-Fasher between 06 and 11 June 2024. Open sources report that the Community Kitchen was damaged and multiple people were killed.

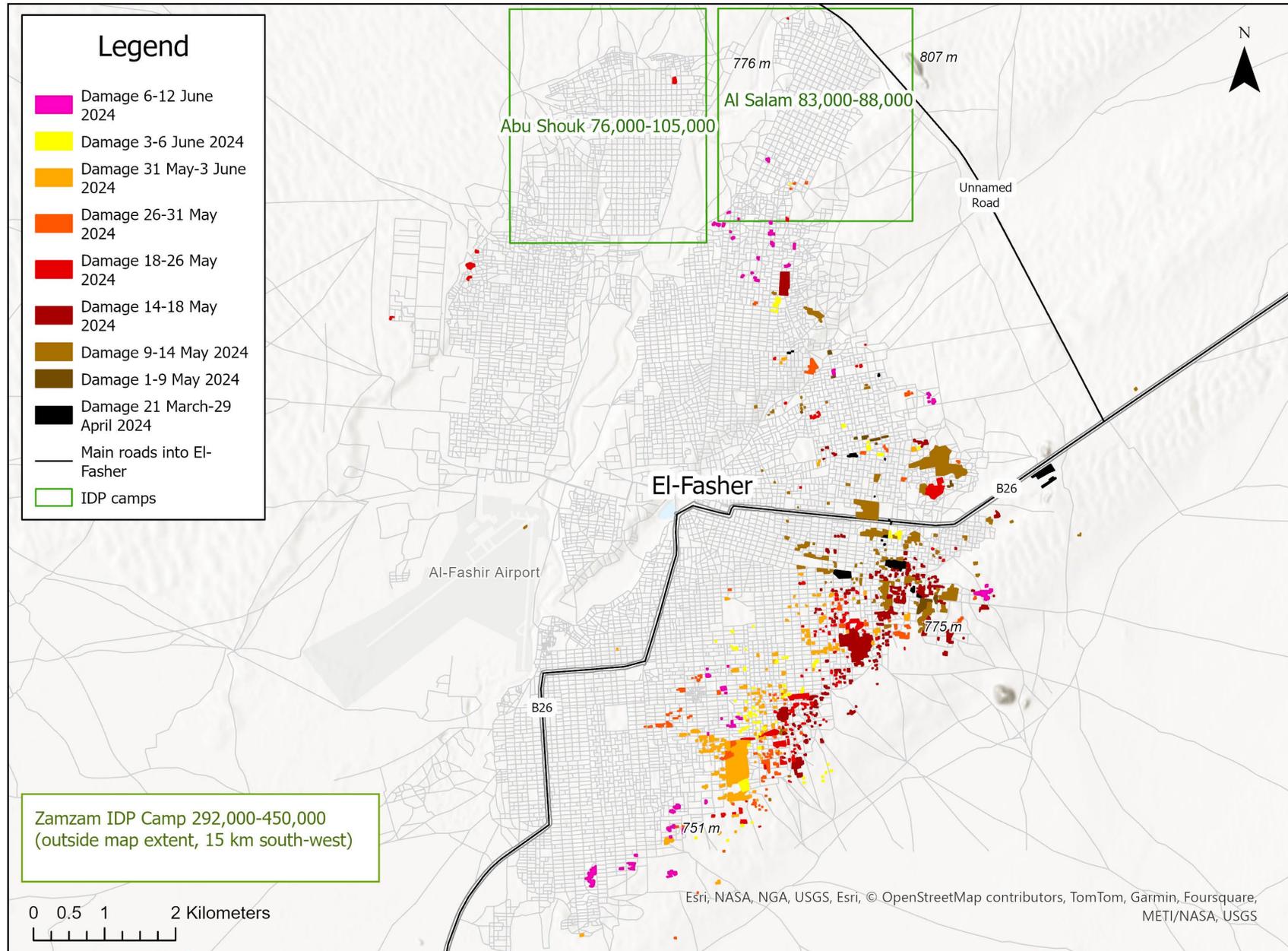


06 June 2024 © 2024 Maxar, USG Plus



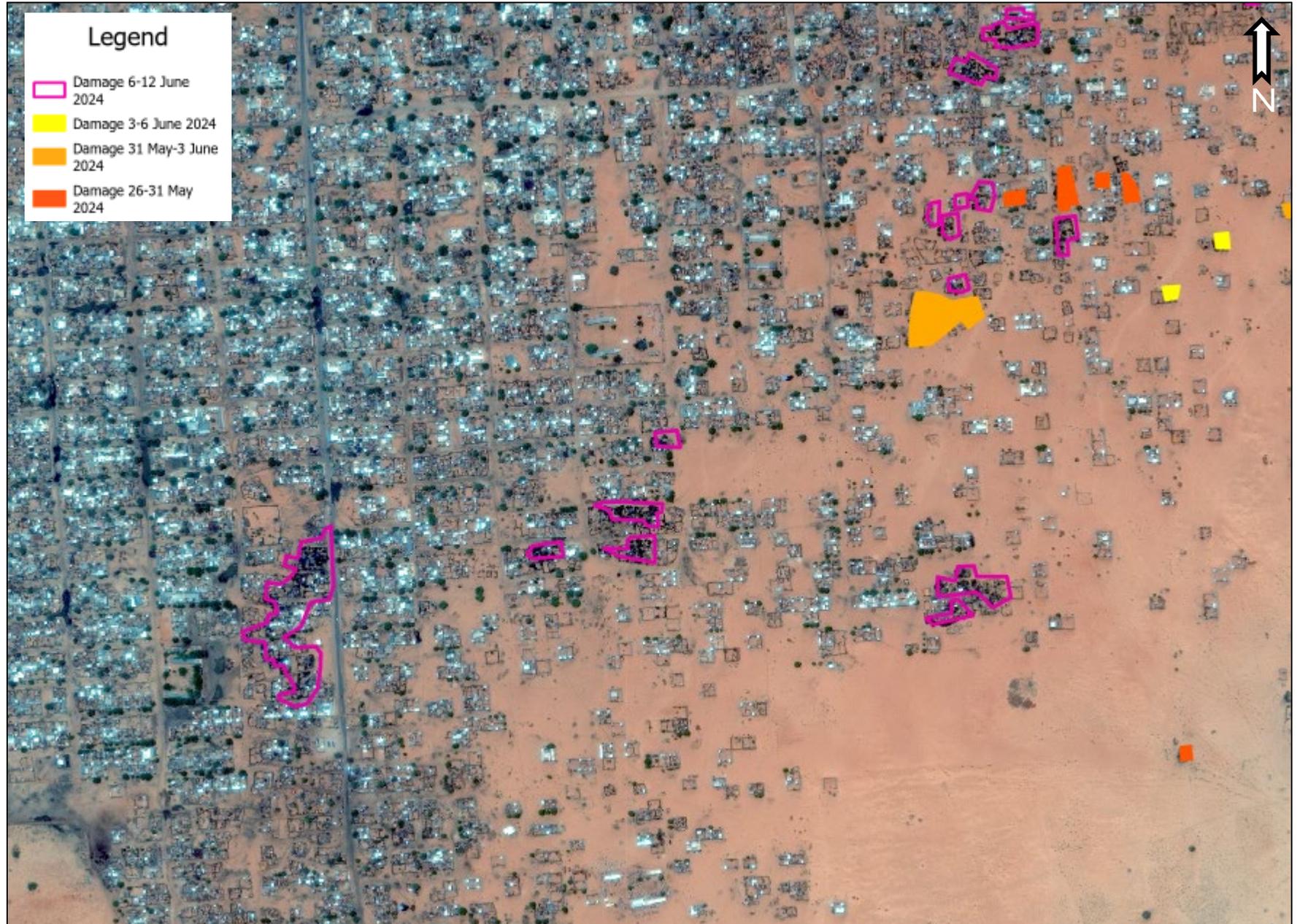
11 June 2024 © 2024 Maxar, USG Plus

Thermal scarring observed at El-Fasher between 21 March-12 June 2024



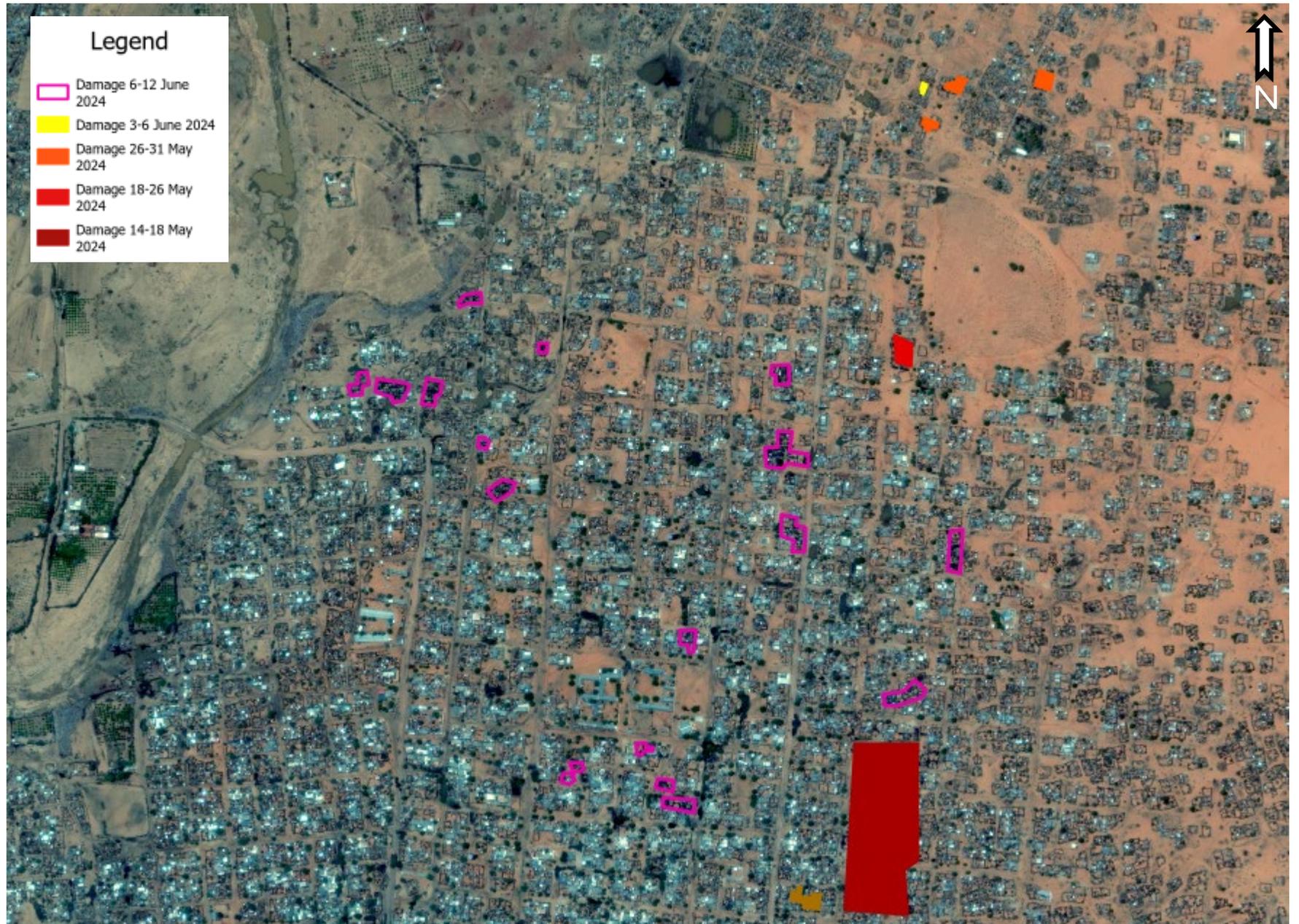
New Thermal Scarring between 6-12 June 2024, South El-Fasher

According to analysis of satellite imagery, new incidents of thermal scarring are observed between 6-12 June 2024 at in southern neighborhoods in El-Fasher. This incident is the furthest south-west of El-Fasher observed since the 21 March 2024. It likely indicates the increasing movement of the perpetrating force towards south-west El-Fasher.



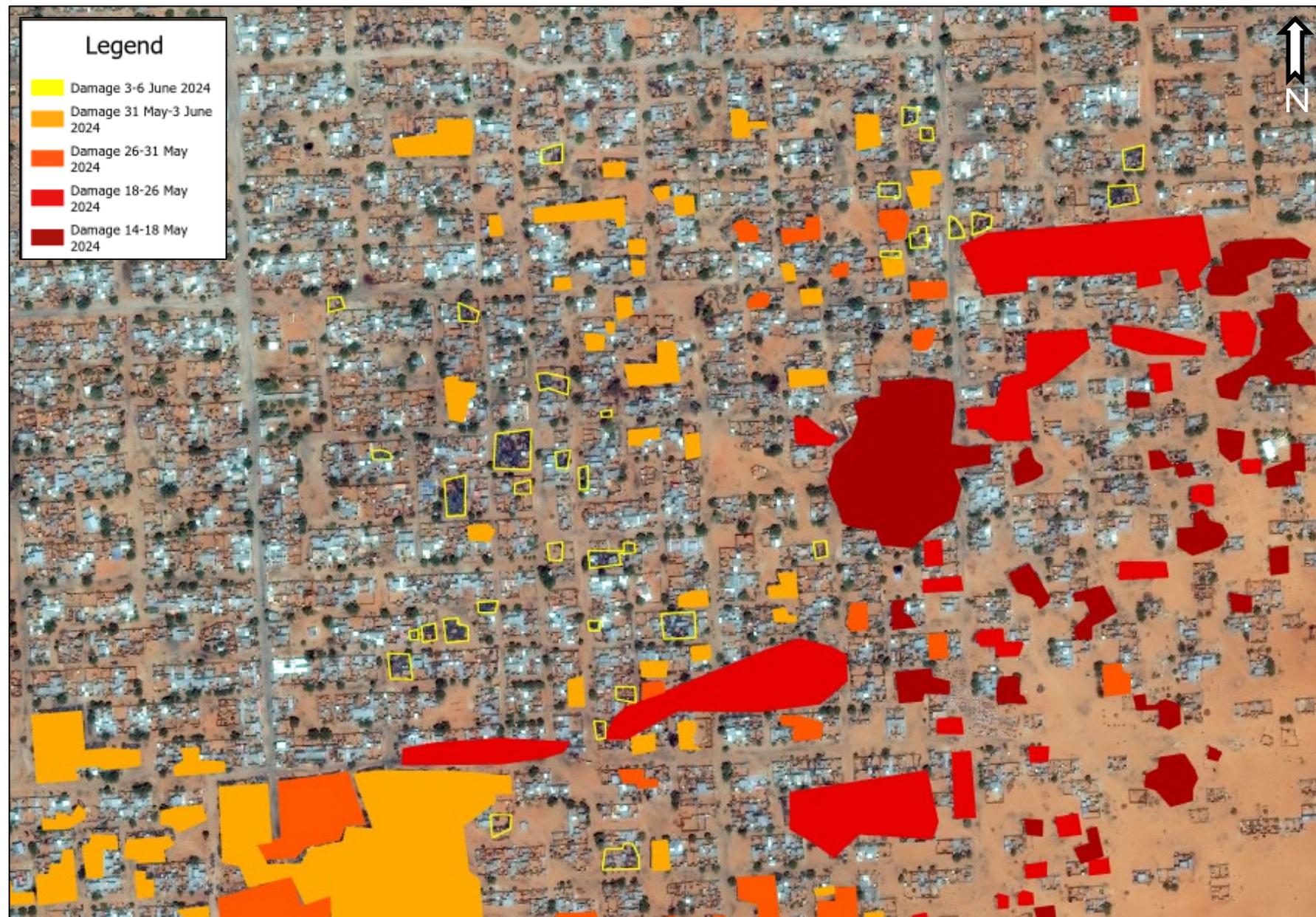
New Thermal Scarring at Riyadh District North between 6-12 June 2024, North El-Fasher

According to analysis of satellite imagery, new incidents of thermal scarring are observed between 6-12 June 2024 at Riyadh District North, south El-Fasher. These incidents are the close to Al Salam IDP camp. It possibly indicates increased fighting at north El-Fasher.



Continuous Thermal Scarring at Ashishat neighborhood between 3-6 June 2024, South El-Fasher

According to analysis of satellite imagery, additional incidents of thermal scarring are observed between 3-6 June 2024 at Ashishat neighborhood, south El-Fasher. It likely indicates a repetitive attack on the same area and the possibly continuous presence and freedom of movement by the perpetrating force.



El-Fasher

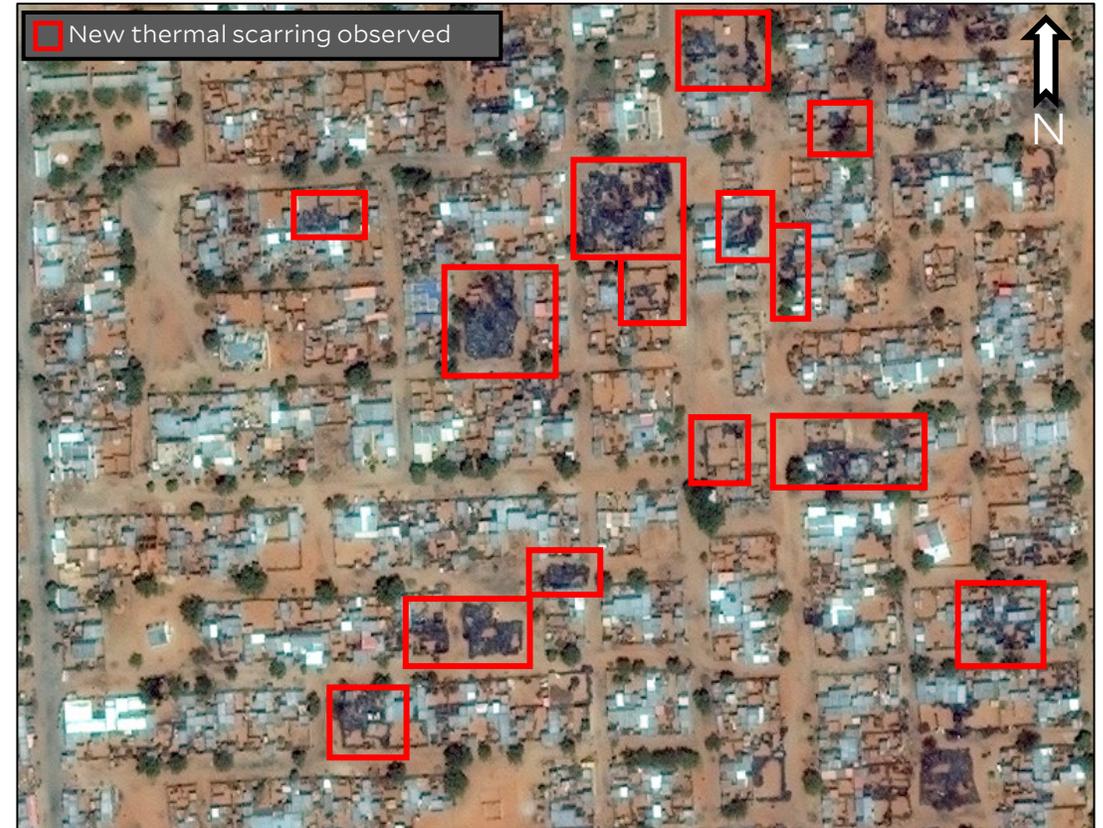
NEW THERMAL SCARRING OBSERVED BETWEEN 03 AND 06 JUNE 2024



03 June 2024 © 2024 Planet Labs

According to analysis of satellite imagery, thermal scarring was observed between 03 and 06 June 2024, within Ashishat neighborhood at south El-Fasher.

According to analysis of VIIRS data, fire activity was detected at this location on 06 June 2024 at 11:13 UTC.



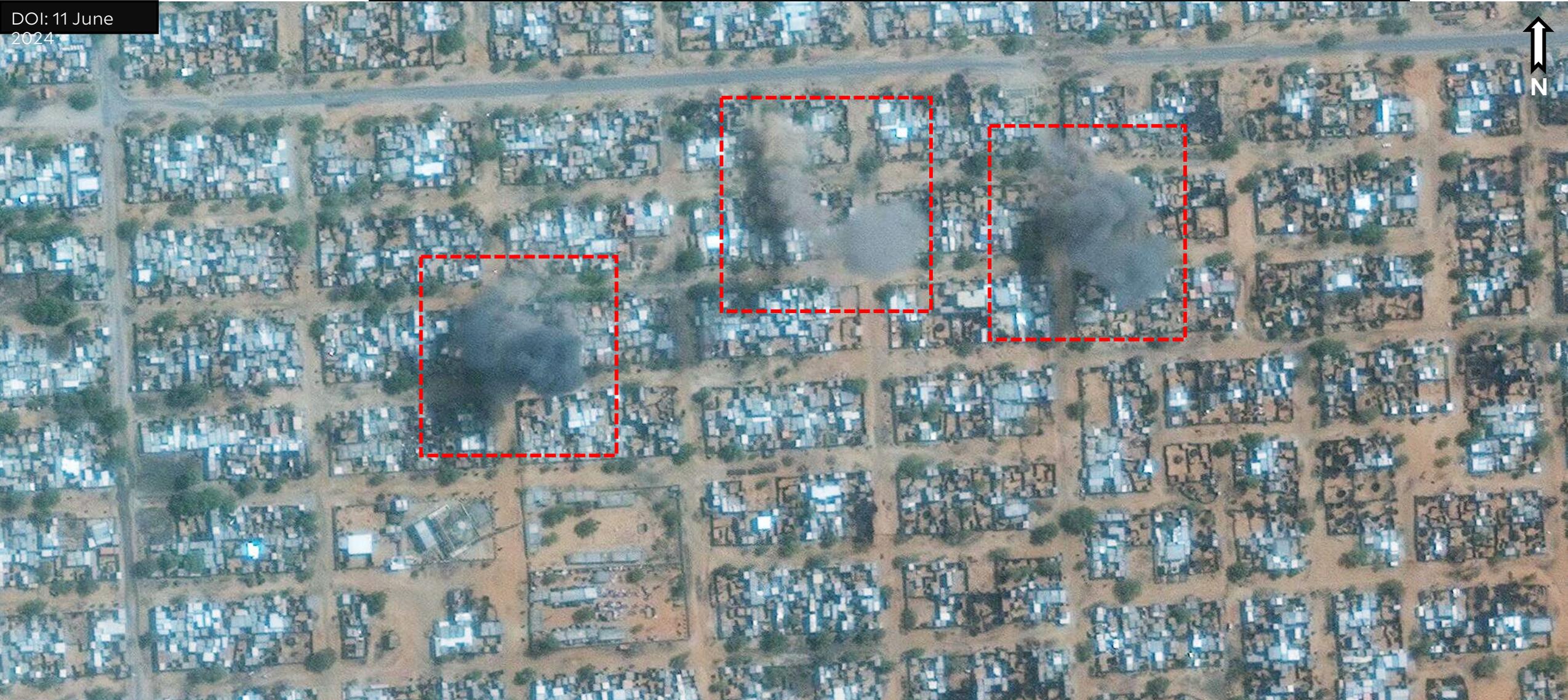
06 June 2024 © 2024 Maxar, USG-Plus

Smoke Plumes from likely bombardment in Al Wahda neighborhood in east El-Fasher

According to analysis of satellite imagery, on 11 June 2024, 25.3701700°E 13.6130754°N



DOI: 11 June 2024



Southern Neighborhoods of El-Fasher

According to analysis of satellite imagery, thermal scarring was observed in south El-Fasher between 11 and 12 June 2024.

NEW THERMAL SCARRING OBSERVED
BETWEEN 11-12 JUNE 2024



11 June 2024 © Maxar, USG-Plus



12 June 2024 © 2024 Maxar, USG-Plus

Community 29, North Darfur

NEW THERMAL SCARRING OBSERVED BETWEEN 26 MAY-04 JUNE 2024

According to analysis of satellite imagery, thermal scarring was observed between 26 May and 04 June 2024, within Community 29, 46 km west of central El-Fasher.



25.0771336°E 13.9388797°N

26 May 2024 © Maxar, USG-Plus



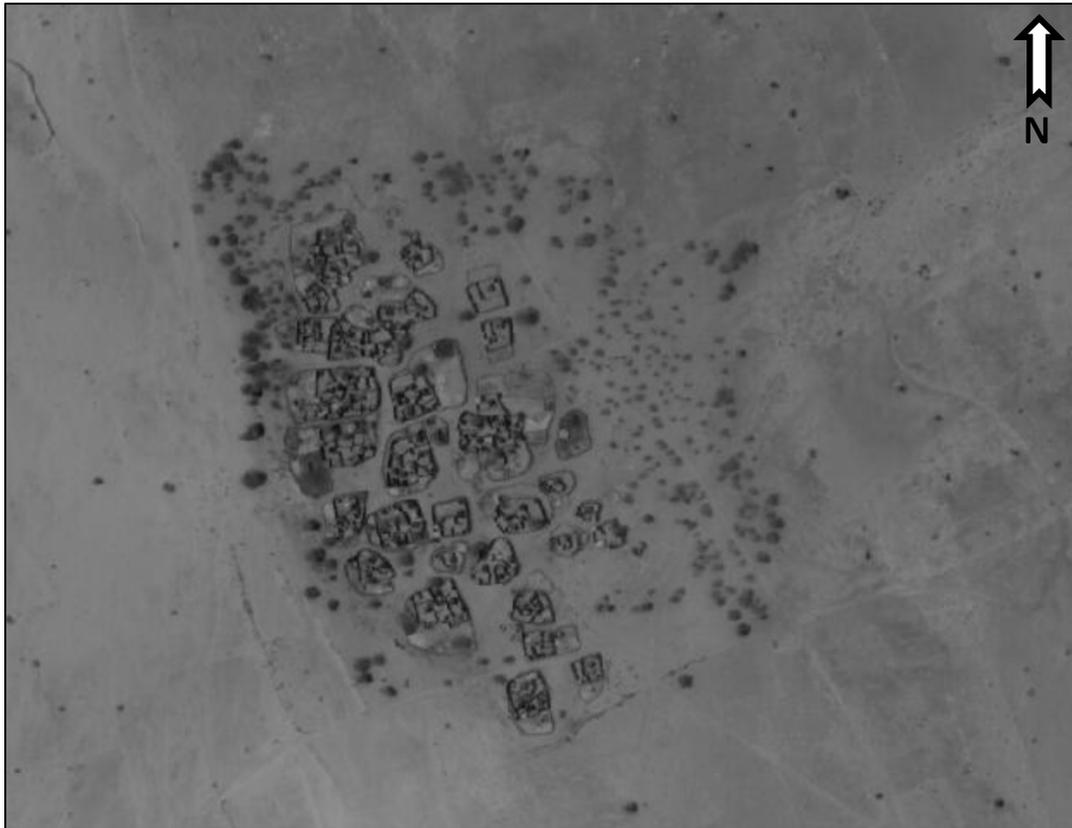
25.0771336°E 13.9388797°N

04 June 2024 © 2024 Maxar, USG-Plus

Community 30, North Darfur

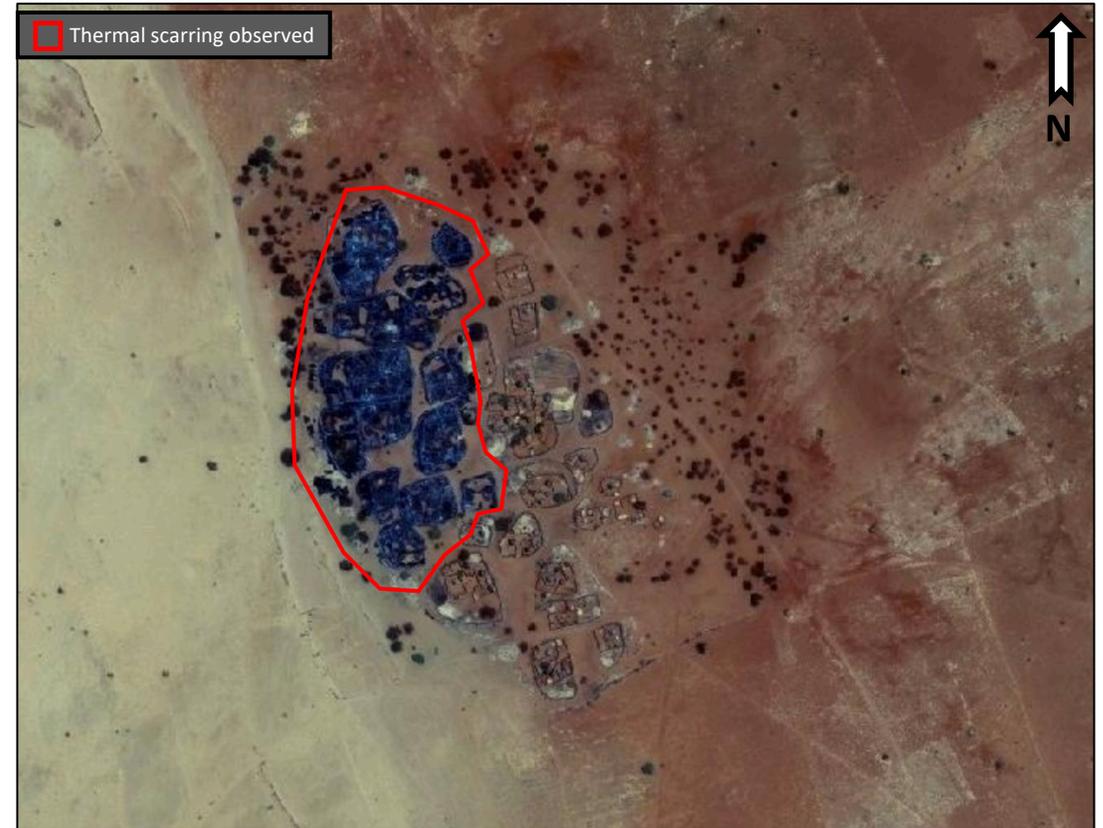
NEW THERMAL SCARRING OBSERVED BETWEEN 05-06 JUNE 2024

According to analysis of satellite imagery, thermal scarring was observed between 05 and 06 June 2024, within Community 30, 35 km west of central El-Fasher.



25.1221981°E 13.8855598°N

05 June 2024 © Maxar, USG-Plus



25.1221981°E 13.8855598°N

06 June 2024 © 2024 Maxar, USG-Plus

Community 31, North Darfur

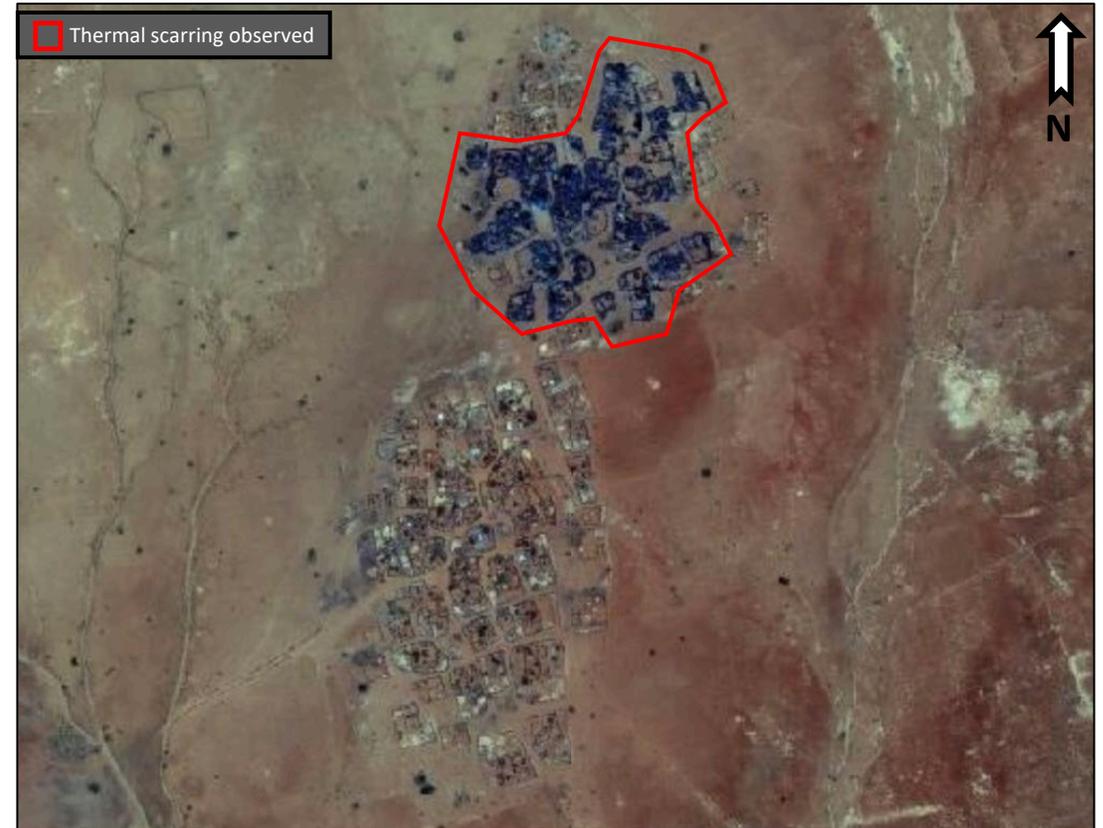
NEW THERMAL SCARRING OBSERVED BETWEEN 05-06 JUNE 2024

According to analysis of satellite imagery, thermal scarring was observed between 05 and 06 June 2024, within Community 31, 35 km west of central El-Fasher.



25.1258602°E 13.8626279°N

05 June 2024 © Maxar, USG-Plus



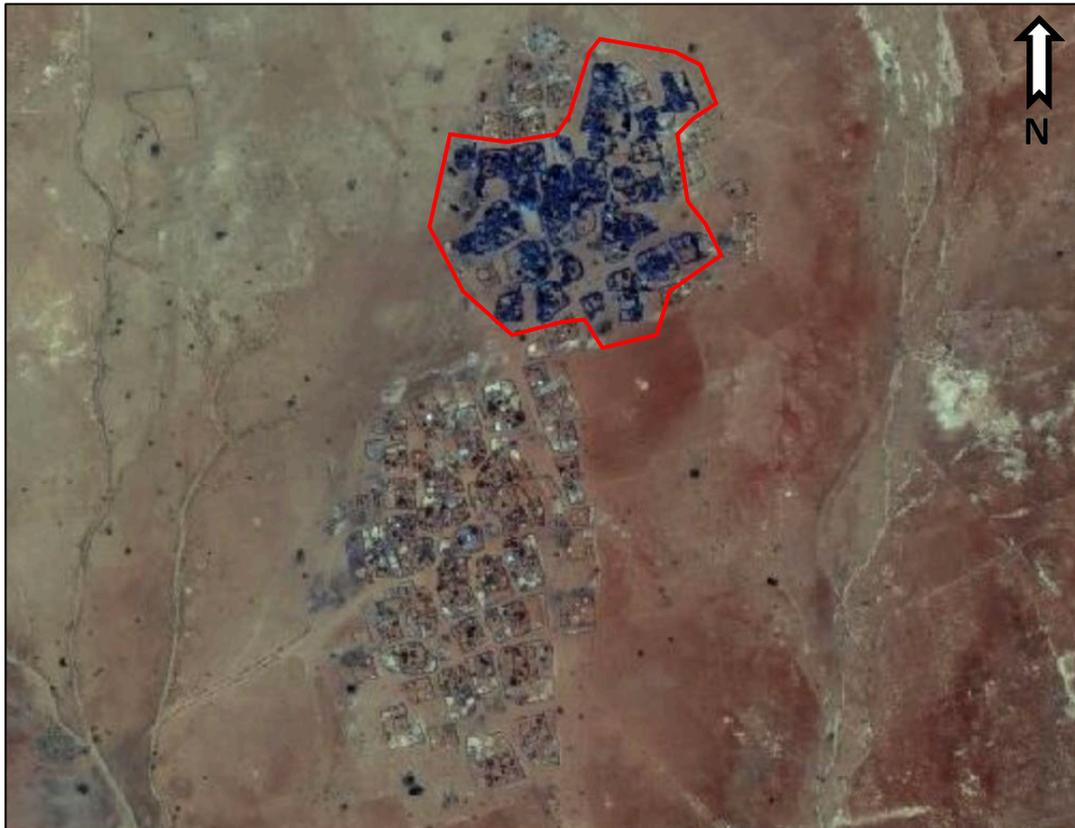
25.1258602°E 13.8626279°N

06 June 2024 © 2024 Maxar, USG-Plus

Community 31, North Darfur

NEW THERMAL SCARRING OBSERVED BETWEEN 01-12 JUNE 2024

According to analysis of satellite imagery, thermal scarring was observed between 05 and 06 June and the 06 and 12 2024, within Community 31, 35 km west of central El-Fasher.



25.1258602°E 13.8626279°N

06 June 2024 © Maxar, USG-Plus



25.1258602°E 13.8626279°N

12 June 2024 © 2024 Maxar, USG-Plus

Tikailat, North Darfur

NEW THERMAL SCARRING OBSERVED BETWEEN 04-06 JUNE 2024

According to analysis of satellite imagery, thermal scarring was observed between 04 and 06 June 2024, within Tikailat, 31 km west of central El-Fasher.

Thermal scarring at the same community was previously observed between 10-15 April 2024.



25.0746402°E 13.7129895°N

04 June 2024 © Maxar, USG-Plus



25.0746402°E 13.7129895°N

06 June 2024 © 2024 Maxar, USG-Plus

Jughmar, North Darfur

NEW THERMAL SCARRING OBSERVED BETWEEN 03 AND 06 JUNE 2024

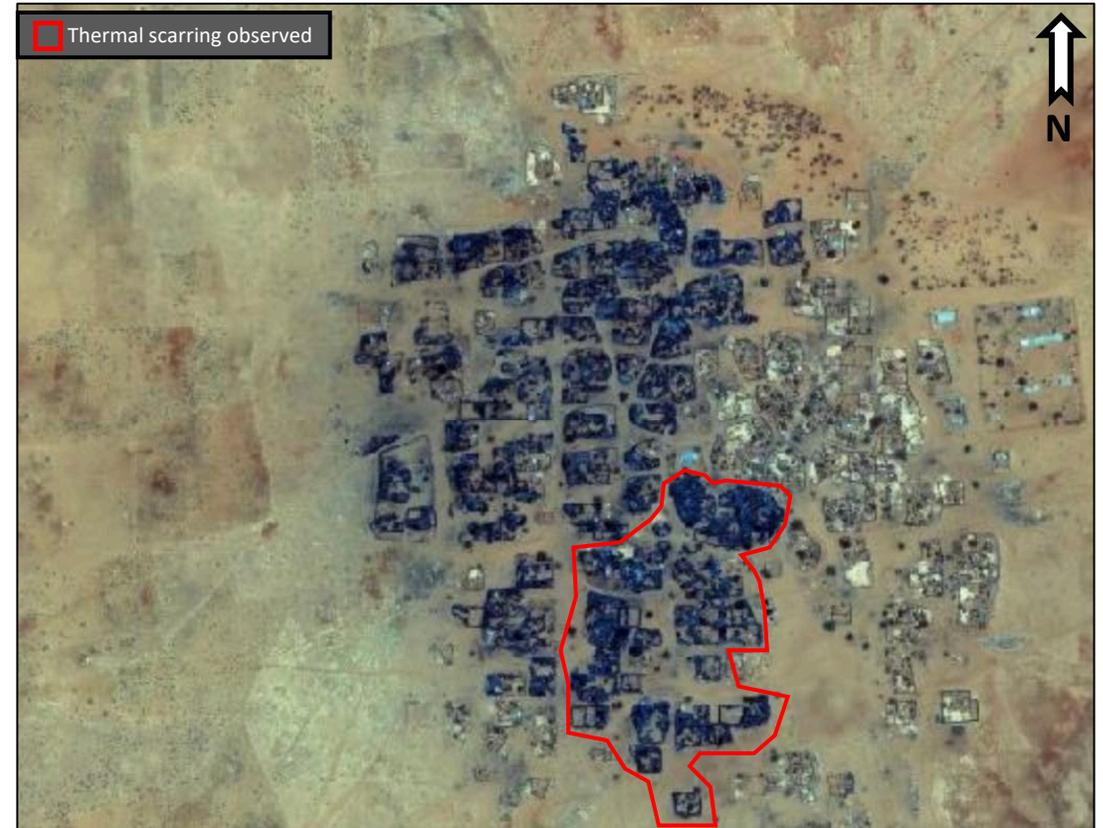
According to analysis of satellite imagery, thermal scarring was observed between 03 and 06 June 2024, within Jughmar, 25 km west of central El-Fasher.

Thermal scarring at the same community was previously observed between 26 May and 03 June 2024.



25.1270663°E 13.7156808°N

03 June 2024 © Maxar, USG-Plus



25.1270663°E 13.7156808°N

06 June 2024 © 2024 Maxar, USG-Plus

Ammar Jadid, North Darfur

NEW THERMAL SCARRING OBSERVED BETWEEN 03-06 JUNE 2024

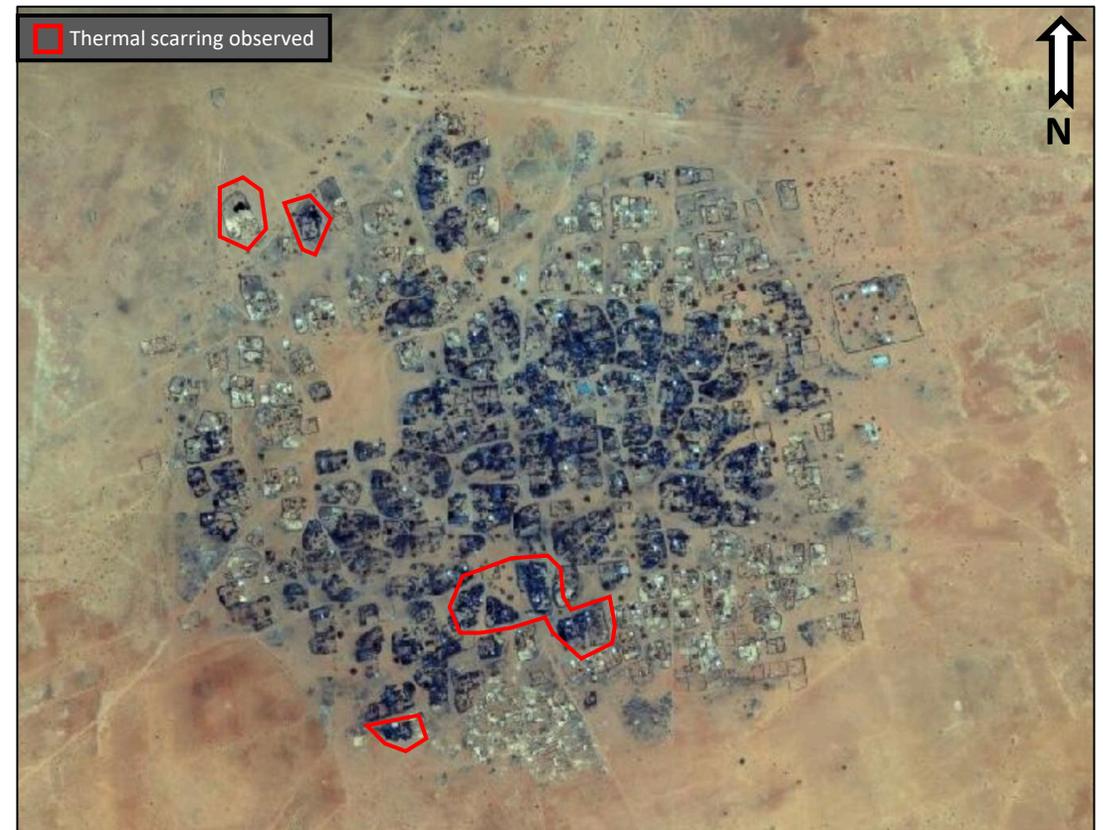
According to analysis of satellite imagery, thermal scarring was observed between 03 and 06 June 2024, within Ammar Jadid, 28 km west of central El-Fasher.

Thermal scarring at the same community was previously observed between 15 and 20 April, 18 and 20 May, 20 and 26 May, and 26 May and 03 June 2024.



25.1150098°E 13.7435701°N

03 June 2024 © Maxar, USG-Plus



25.1150098°E 13.7435701°N

06 June 2024 © 2024 Maxar, USG-Plus

Jaranga, North Darfur

NEW THERMAL SCARRING OBSERVED BETWEEN 06-12 JUNE 2024

According to analysis of satellite imagery, thermal scarring was observed between 06 and 12 June 2024, within Jaranga, 27 km west of central El-Fasher. Based on VIIRS detections, the time of thermal scarring can be narrowed down to the 8 June 2024.

Thermal scarring at the same community was previously observed between 10-15 April 2024.



25.0999746°E 13.6696816°N

06 June 2024 © Maxar, USG-Plus



25.0999746°E 13.6696816°N

12 June 2024 © 2024 Maxar, USG-Plus

Shalakhna, North Darfur

NEW THERMAL SCARRING OBSERVED BETWEEN 06-12 JUNE 2024

According to analysis of satellite imagery, thermal scarring was observed between 06 and 12 June 2024, within Shalakhna, 39 km north-west of central El-Fasher. Based on VIIRS detections, the time of thermal scarring can be narrowed down to the 8 June 2024.

Thermal scarring at the same community was previously observed between 10-15 April 2024.



25.1071021°E 13.8709345°N

06 June 2024 © Maxar, USG-Plus



25.1071021°E 13.8709345°N

12 June 2024 © 2024 Maxar, USG-Plus